

women are taking in the useful work of the world. Parents will find helpful guidance here as to the education of their daughters and the opportunities available for them to obtain remunerative labour later in life. The volume should be in the hands of every woman worker.

"The Writers' and Artists' Year Book," in addition to being a handy index to periodical literature, places at the disposal of writers, artists and photographers useful guidance in the matter of disposing of their work satisfactorily.

The Beginner in Poultry. The Zest and the Profit in Poultry Growing. By C. S. Valentine. Pp. x + 450. (New York: The Macmillan Company; London: Macmillan and Co., Ltd., 1912.) Price 6s. 6d. net.

By the time the "beginner" has read this book he might well think himself something more than a beginner. The keynote of the work is sympathy, and once possessing that, it is hard indeed if one cannot make a success of any hobby in live stock. Naturally, the suggestions as to management are more suited to the States than to this country, but the reader who wishes to take a broad view of aviculture, and is already conversant with the ins and outs of the daily routine, will find much food for reflection by a careful study of many of the chapters. We would specially commend to the powers that be section 22 on poultry schools. When one knows of the hard struggle for existence some of our educational work has had, and the scant support our own Board of Agriculture can offer, it makes one feel somewhat envious of the magnificent grants that are so freely available on the other side. The writer of this notice has had the good fortune to take part in some of the courses alluded to, and knows that such experts as are engaged at Cornell and Corvallis, &c., are past masters in the poultry world, and heartily endorses much of what the book says on this question.

The work contains some 450 pages, and is profusely illustrated, though several of the reproductions are not quite up to the high standard one usually sees in the American Press. Perhaps the author's other book, "How to Keep Hens at a Profit," should be read first. The present volume is rather for the library or student; it does not cater for the exhibitor. Its value is rather to the thinker, and he who thinks is he who rules.

The Montessori System in Theory and Practice. By Dr. Theodate L. Smith. Pp. vii + 78. (New York and London: Harper Brothers, 1912.) Price 2s. 6d. net.

In the review of Madame Montessori's recent book describing her method of scientific pedagogy as applied to child education in "The Children's Houses," published in NATURE on September 26 last (vol. xc., p. 99), some account was given of the system. It is sufficient to say of Dr. Smith's little volume that it provides a convenient introduction to the methods advocated by Madame Montessori, and some reports of American experience of their adoption.

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LETTERS TO THE EDITOR.

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British Forestry and the Development Commission.

It is more than two years since the Development Commission obtained its fine grant of 500,000*l.* yearly for five years. There have been Parliamentary grants in addition; thus 900,000*l.* was available the first year. Said *The Times*: "The Development Fund is a remarkable departure from the *laissez-faire* policy which has so long dominated the proceedings of British Governments." It was early announced that one of the chief objects of the Development Commission was British forestry, *including the purchase and planting of land*. One small piece of poor ground in Scotland represents all the land that has yet been acquired in Britain; and foresters are beginning to inquire if we have really broken away from the bad traditions of the past. British forestry has never had such an opportunity as this half-million grant. Will anything practical be done before it is too late and the grant come to an end, because nothing practical has been achieved? It is true that there have been useful educational grants; and promises of loans for forestry, on liberal terms, to "local authorities or other responsible bodies": but this, without State forestry, is putting the cart before the horse. As is well known, the communal forests on the Continent carry a class of forest inferior to the State forests, and they are only kept up to this standard by either State supervision or their management by State forest officers, combined with the stiffening effect of the better managed State forests in their midst.

For fifty years British State forestry has been standing still. Excellent schemes have been prepared. There have been innumerable Parliamentary Committees and reports! Three quite good British schools of forestry training have been established, and, alas! abolished, in spite of the excellent training they were giving. There remains now but one State forest school, the useful institution for instructing woodmen in the Forest of Dean. In the successive abandonment of these Government forest schools we see the want of a permanent forest authority to defend them against the vacillations of political control.

The onus of this failure in forestry—and forestry is perhaps the greatest of the modern arts—lies in the hesitancy of the Britisher to accept State forestry. It is tolerably certain that no material progress in British forestry will ever be made without State forestry, which is the kernel and *nith* of the whole business. There are two reasons why we must accept State forestry. Only the State can obtain money at a low enough rate of interest ($2\frac{1}{2}$ or 3 per cent.) to make forestry pay in this climate of low sun-power. Only the State has the "unending life," viz. a life long enough for successful forest management. A private owner cannot be expected to plant trees for the public good with only the prospect of an uncertain 2 or 3 per cent., going to his son, his grandson, or even his great-grandson. Further, forestry, like so many other industries, must be done on a large scale to yield good returns.

Most of the opposition to State forests is no doubt due to ignorance of what they are. To the uninitiated they may look much like the wild forest that, in parts of the world, has to be largely cut down to make

way for settlement. But, to those who know, the modern cultivated forest is very different. It yields more timber, and its uses "for the healing of the nations" are manifold and of the first importance. The nearer it comes to our doors, the better for us; and happily also the better for the cultivated forest. The wild forest is generally a distant business, not entering into the daily life of the people, a life which the forest can so enrich and enlarge.

The avowed object of the Development Commission when instituted was "to apply State methods long proved successful in other countries and in the Colonies to the development" of these islands. But the Development Commissioners have now formally stated that their *general policy is adverse to State forestry* (Report for period ending March 31, 1911). No reasons are given for the adoption of a decision so strangely at variance with the rest of the civilised world. Germany spends 7,000,000*l.* a year on State forestry. The Prussian Forest Department between 1867 and 1892 acquired 329,850 acres of waste land for re-forestation at a cost of about 1,125,000*l.*, besides granting substantial bounties for planting to private landowners, and giving in one year (1893) about 32,000,000 young trees for planting to private owners of woodlands (Dr. Nisbet). France, with a much smaller forest area, spends half a million yearly on State forestry.

Every country in Europe has its State forests in a more or less advanced condition of development. Most instructive, in this respect, is the excellent forest work of Japan. With a cool head and free hands, unfettered by the traditions of Western Europe, it has calmly appropriated what is good in Western civilisation and rejected the bad. Japan adopted State forestry in the earliest days of its civilisation. It is now spending more than 250,000*l.* yearly on its State forests, and it has some 100 million young trees in its State forest nurseries. The returns show an average of sixty-two million trees planted yearly in the State forests! There are free grants of trees and subsidies for private tree-planting. Instruction in forestry permeates the whole educational system, from the universities to the village schools.

Writing as one who has borne a prominent share in one of the largest works of constructive forestry in recent times, I say without hesitation, let the Development Commissioners frankly accept State forestry and do as the rest of the world. If, thirty years ago, Cape Colony had hesitated at practical State forestry it would not occupy the position it does now.

Cape Colony (now under Union the Cape Province) has spent considerably more than 1,000,000*l.* on its forestry, and it is now producing, within its own borders, the greater portion of the timber imported from abroad at a cost of between 300,000*l.* and 400,000*l.* yearly. Cape Colony has wisely held that it is too poor a country to go on paying out this large sum yearly for imported timber.

Though so little has yet been done for practical forestry in Britain, the Irishman has made his voice heard with the happiest results! He has established an epoch in the history of British forestry with the decision of the Development Commission that "State afforestation on a small scale may be started in Ireland immediately." According to the last returns that have reached me, there has actually been acquired for forest purposes in Ireland an area of more than 7000 acres.

It is a serious reflection that Great Britain, year after year, is spending some twenty-five million pounds sterling on imported timber and forest products, a considerable portion of which could be grown on the waste lands of these islands.

Sir William Schlich, in one of his admirable pub-

lications on British forestry ("Forestry in the United Kingdom," p. 23), says: "From time to time suitable tracts of land come into the market and there is, in my opinion, no reason why the State should not acquire such land for re-forestation."

Though little has been done for Scotch forestry, for England and Wales there has been even less. Indeed, no beginning of practical State forestry has yet been made in England and Wales. The mountains of Wales, the Weald of Kent, the Sussex Downs, still show vestiges of their ancient wild forests; and here is the best field (near industrial centres) for the more productive modern cultivated forest. There is no reason, except national improvidence, why the Welsh mines should continue to draw the greater part of their pit props from France; or why the Weald of Kent and the Sussex Downs should not have their ancient beauties restored and become once more a source of local wealth and the joy to the Londoner that the beautiful forests near Paris are to the Parisians. Nowadays it is these accessible forests, close to industrial centres, that yield the best returns, some of them in France and Germany from 2*l.* to more than 3*l.* per acre per year of net revenue. Not very long ago it was remarked to me by a French forest expert that these forests near Paris, financially, were carrying the distant Alpine forests on their backs!

There are considerable areas of poor land within twenty or thirty miles of London that, at a reasonable expenditure, could be turned into rich forests, like the Beech forest of the Chiltern Hills. In the Highlands of Scotland, and on the Welsh mountains, there are climatic difficulties (too frequent mists, too little sun), bogland, and peat. But the south-east of England is free from these climatic troubles. It is everywhere within the climatic limits of vigorous and easy tree growth. Let us not forget that in going from the north of Scotland to the south of England we go half-way to middle Italy and Portugal, where the sun-power gives those enormous yields of timber that are the wonder of foresters in more northern climates, 20 tons of (air-dry, seasoned) wood, or 700 cu. ft. per acre per year.

There are 36,000 acres of heath, waste, or poor pasture land in Kent, Surrey, and Sussex. Labour, especially during the winter months, is abundant. Forest work is of the healthiest kind possible. Nowhere in the world do we see men of finer physique than the small farmers and villagers of Germany, who, in the winter, when other work is scarce, find their salvation in the health-giving forest.

Some 10 per cent. of the industrial population of Germany draw their livelihood from the forest, and Sir William Schlich has computed ("Forestry in the United Kingdom") that under any general scheme of State forestry for the British Isles, there would be employment for some two and a half million labourers in winter, and parts of spring and autumn. Here are far-reaching issues. Parliament has voted the money to put them to the test. And yet we allow insular prejudice to block the way to State forestry, which is the essential feature of modern scientific forestry in other countries.

D. E. HURCHINS.

Ridley, Kent, December 17.

The Recent Foraminifera of the British Islands.

I AM proposing, with my collaborator, Mr. Arthur Earland, to prepare a Monograph of the British Foraminifera, the work of Williamson being now in serious need of being brought up to date. With this object in view we are sending a preliminary schedule of questions relative to the shore sands of the British Islands to clergymen and medical men at coastal towns